ABSTRACT OF THE DISCLOSURE

The FIR filter separately receives input data consisting of transmitting information and composed of bit strings, and additional data which is added in order to transmit the input data. The input data is operated with the additional data. A difference between the

5 additional data corresponding to previous data (for instance, most recent data) among the input data and the additional data corresponding present data is obtained, and the difference and the previous data are operated. Then, the operation results are added and the resultant is outputted as a filter response. The input data and the additional data are separately received to be operated so that the circuit scale of the filter is reduced. Therefore, a chip of

10 the semiconductor integrated circuit can be downsized and thereby cost reduction in the communication system can be realized.